

Agaricus brunneofibrillosus Kerrigan sp. nov.

Holotype: Specimen RWK 2037. Lighthouse Drive, Pacific Grove, Monterey Co., California, USA, 23 Mar. 2009. Leg. R. W. Kerrigan & A. L. Kautzer, deposited in SFSU herbarium.

MB 802544

Misapplied Names: *A. fuscofibrillosus* (F. H. Møller) Pilát 1951, by Kerrigan (1982, 1986).

AFFINITIES

Subsection *Bohusia*; with *A. amicosus*.

NOTABLE FEATURES

Moderate size and stature; rich brown, smooth cap; stem becoming grayish; flesh strongly reddening; brown scale-rings often present between ring and base of stem.

DESCRIPTION

PILEUS 6–10 (–13) cm diam., at first hemispherical without strongly inrolled margin, becoming broadly convex to plane, with a low umbo; pileipellis dark reddish-brown (ca. 6D8–6E8, “Russet,” “Cinnamon-Brown,” “Walnut Brown,” “Rood’s Brown,” “Vandyke Brown,” “Verona Brown”), or more drab in age, sometimes lustrous, formed of innate fibrils, remaining entire, seldom even appressed-squamose, background not visible; context to 10 (–15) mm thick, white, becoming red within seconds when exposed, odor fruity/spicy soon after exposure. Lamellae free, close, to 9 mm broad, at first medium pink, bruising rose-colored, later dull blackish-brown. STIPE equal to clavate, or rarely enlarged centrally and tapered or truncate below, 6–14 cm long × 10–20 mm above, 20–30 mm below; surface minutely striate above, slightly innately fibrillose below, white, rufescent, sometimes somewhat lustrous, becoming grayish-brownish in age, adorned below with one to three smooth, appressed brownish scale-rings; interior stuffed-hollow, context white, quickly and strongly becoming reddish in the upper half when exposed; base usually shallowly rooted, surface pigmented as pileus. VEILS forming an ample, subapical, pendent (rarely appressed) entire or two-limbed annulus, 1–2 mm thick, upper surface white, minutely striate, ca. 1 mm thick, lower surface white or off-white, or typically becoming brownish, innately fibrillose, the fibrils pulled away by the stipe, also forming basal scale-rings sometimes surmounting a very thin, appressed volval boot of similar or darker (brown) pigmentation.

SPORES dark brown at maturity, ellipsoid, (4.5–4.9–) 5.3–6.0 (–7.5) × (3.4–) 3.9–4.4 (–5.3) μm , mean = 5.7 × 4.2 μm , L/W = 1.36 (N=150, C=10); hilar appendix not prominent; apical pore not evident. BASIDIA predominantly tetrasporic, clavate to cylindro-clavate, ca. 20 × 6–8 μm ; sterigmata 2–3 μm long. CHEILOCYSTIDIA cylindrical, clavate or subpyriform, uncommon, scattered, 12–22 × 4.5–7.5 μm .

CHEMISTRY

KOH negative; aniline + acid negative, *o*-tolidine rapidly violet everywhere except blue on external basal/sub-basal mycelium, sometimes elsewhere in stipe, and sometimes on or near disc.

HABIT, HABITAT, DISTRIBUTION

Solitary, scattered, gregarious, or cespitose in fairly deep needle litter of *Hesperocyparis macrocarpa*, very often near roads or paths, along California’s central coast; in Southern California apparently rarely under *Quercus*. Common in some years, absent in others. December–February.

ETYMOLOGY

A fibrillose-brown-capped species distinct from *A. fuscofibrillosus*.



A. brunneofibrillosus: collection RWK 1406 & 1407 [not extant]. Monterey Co., California. $\times\sim 0.65$.

DISCUSSION

Agaricus brunneofibrillosus is a distinctive, attractive species. The pileus covering is a rich, deep reddish-brown, virtually entire and smooth, composed of radially oriented fibrils. The red-staining is strong, fast, and extensive. The brownish scale-rings on the lower stipe are fairly reliable. All in all, it is not a difficult species to recognize, at least if you are under cypresses (although it may also occur elsewhere).

I previously treated this species under the 1951 name *A. fuscofibrillosus*. I have since discussed the latter, European species at length with Luis Parra, who places it in synonymy with *A. langei* (originally described with spores 7–8 (–10) μm long and cheilocystidia to 50 \times 30 μm ; I place that species in section *Agaricus*). Although several characters of *A. brunneofibrillosus* agree with *A. fuscofibrillosus*, others indicate that our species is distinct from it. Our species belongs in a different clade, subsection *Bohusia*, along with *A. amicosus*.

EDIBILITY

Edible



RWK 968 [SFSU]. San Mateo Co., California. $\times\sim 1.05$.